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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHOKSHI, PINKAL R

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,696	Applicant(s) GERVAIS ET AL.	
	Examiner PINKAL CHOKSHI	Art Unit 2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/20/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 6, 11-13, and 24** are rejected under 35 U.S.C. 102(b) as being anticipated by US PG Pub 2002/0059626 to Lemmons (hereafter referenced as Lemmons).

Regarding **claim 6**, “a method for use in an upstream endpoint of a video distribution system” reads on the method of optimizing utilization of available bandwidth in the cable network (§0003) disclosed by Lemmons and represented in Fig. 1.

As to “the method comprising: receiving tuning data from at-least-one endpoint of the video distribution system, the tuning data representing programming that is currently being viewed at the at-least-one endpoint” Lemmons discloses (§0031 and claim 10) that the receiver transmits a message, which indicates that viewer has selected a channel to be viewed and the device is turned on/off, to the head-end as represented in Figs 1 and 3.

As to “adjusting programming to replace content as a function of the received tuning data” Lemmons discloses (§0032) that an algorithm for

reassigning channels reassign channels that are not being viewed as represented in Fig. 5.

As to “wherein the adjusting step includes the steps of determining from the received tuning data at-least-one program that is not being viewed” Lemmons discloses (¶0032) that based on the list of viewed channels checked, device determines the channels that are not being viewed as represented in Fig. 5 (element 508).

As to “checking if the at-least-one program that is not being viewed is available for replacement before performing the replacing step” Lemmons discloses (¶0034 and ¶0036) that the algorithm checks if the non-viewed channel is available and not being used by data services before replacing with full data program transmission as represented in Fig. 8.

As to “if the at-least-one program that is not being viewed is available for replacement, replacing the at-least-one program that is not being viewed with another program” Lemmons discloses (¶0032) that the non-viewed channel frequency is assigned with the data service by allocating packets in an MPEG stream to data services.

Regarding **claim 11**, “a method for use in an endpoint of a video distribution system” reads on the method of optimizing utilization of available bandwidth in the cable network (¶0003) disclosed by Lemmons and represented in Fig. 1.

As to “the method comprising: receiving a channel selection from a user” Lemmons discloses (§0031 and claim 10) that the receiver transmits a message, which indicates that viewer has selected a channel to be viewed, to the head-end as represented in Figs 1 and 3.

As to “determining if the selected channel is associated with replaced programming and if the selected channel is associated with replaced programming, providing filler content for display to the user instead of the replaced programming” Lemmons discloses (§0032) that an algorithm for reassigning channels reassigns channels that are not being viewed as represented in Fig. 5. Lemmons further discloses (§0034) that if a viewer tunes to a replaced programming channel for more than a predetermined duration, then the paid advertising will be shown.

Regarding **claim 12**, “a method for providing a video broadcast service to a number of users” reads on the method of optimizing utilization of available bandwidth in the cable network (§0003) disclosed by Lemmons and represented in Fig. 1.

As to “method comprising: identifying at least one program channel as a replaceable program channel” Lemmons discloses (§0032) that based on the list of viewed channels checked, device determines the channels that are not being viewed or replaceable as represented in Fig. 5 (element 508).

As to “providing the replaceable program channel to the number of users,

wherein the replaceable program channel may at times be replaced by content from another program channel as a function of the number of users that select the replaceable program channel” Lemmons discloses (¶0032) that based on the number of viewers that selects non-viewed channels, system will re-assigned those frequencies with data services by allocating packets in an MPEG stream to data services.

Regarding **claim 13**, “the method wherein the replaceable program channel is replaced if the replaceable program channel is not selected by any of the number of users” Lemmons discloses (¶0032) and as represented in Fig. 5, that once the data services are assigned to the replaced channel (element 512), it loops it back to new channel list (element 504) and when the new assigned channels are not viewed, it is re-assigned by another data service.

Regarding **claim 24**, “apparatus for use in an endpoint of a video distribution system” reads on the method of optimizing utilization of available bandwidth in the cable network (¶0003) disclosed by Lemmons and represented in Fig. 1.

As to “the apparatus comprising: a communications interface for coupling to a communications channel” Lemmons discloses (¶0028) that the receiver is connected to cable system via network interface as represented in Fig. 3 (elements 302, 304).

As to “a processor for determining if a program channel selection from a user is associated with replaced programming and, if so, for providing filler content for display to the user instead of the replaced programming” Lemmons discloses (§0031 and claim 10) that the receiver transmits a message, which indicates that viewer has selected a channel to be viewed, to the head-end as represented in Figs 1 and 3. Lemmons further discloses (§0032) that an algorithm for reassigning channels reassigns channels that are not being viewed as represented in Fig. 5. Lemmons further discloses (§0034) that if a viewer tunes to a replaced programming channel for more than a predetermined duration, then the paid advertising will be shown.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-5, 7-10 and 14-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmons in view of US Patent 7,363,643 to Drake (hereafter referenced as Drake).

Regarding **claim 1**, “a method for use in an upstream endpoint of a video distribution system” reads on the method of optimizing utilization of available

bandwidth in the cable network (§0003) disclosed by Lemmons and represented in Fig. 1.

As to “the method comprising: receiving tuning data from at-least-one endpoint of the video distribution system, the tuning data representing programming that is currently being viewed at the at-least-one endpoint” Lemmons discloses (§0031 and claim 10) that the receiver transmits a message, which indicates that viewer has selected a channel to be viewed and the device is turned on/off, to the head-end as represented in Figs 1 and 3.

As to “adjusting programming to replace content as a function of the received tuning data” Lemmons discloses (§0032) that an algorithm for reassigning channels reassign channels that are not being viewed as represented in Fig. 5.

As to “IGMP signaling includes a packet comprising downstream frequency information and packet identifier information representing the programming that is currently being viewed” Lemmons discloses (§0029) the representation of programming with downstream frequency information and packet identifier information as represented in Fig. 2.

Lemmons meets all the limitations of the claim except “wherein the tuning data is received via a modified form of IGMP (Internet Group Management Protocol) signaling.” However, Drake discloses (col.4, lines 37-55) that the STB receives event information data using IGMP signals. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to

modify Lemmons invention by using IGMP signals to transmit downstream frequency data and packet identifier as taught by Drake in order to receive traffic for a specific group of frequency/channels and allow more efficient use of resources.

Regarding **claim 2**, “the method wherein the adjusting step replaces content that is not being viewed” Lemmons discloses (¶0032) that if the channel is found that is not being viewed, then the data service is assigned to the non-viewed channel as represented in Fig. 5 (element 508).

Regarding **claim 3**, “the method wherein the currently viewed programming is a video program” Lemmons discloses (¶0027) that the head-end transmits data that contains video programming to the STB.

Regarding **claim 4**, “the method wherein the video distribution system is a cable broadcast system” Lemmons discloses (¶0025) that the method uses cable television broadcast network as represented in Fig. 1.

Regarding **claim 5**, “the method wherein the adjusting step includes the steps of: determining from the received tuning data at-least-one program that is not being viewed” Lemmons discloses (¶0032) that based on the list of viewed

channels checked, device determines the channels that are not being viewed as represented in Fig. 5 (element 508).

As to “disabling the transmission of the at-least-one program, the at-least-one program having associated therewith a first bandwidth” Lemmons discloses (§0032) that if a channel/frequency is found that is not being viewed, transmission of the television program on that frequency is halted as represented in Fig. 5 (element 510).

As to “increasing a bandwidth allocation of another service of the video distribution system by using at least a portion of the first bandwidth” Lemmons discloses (§0032) that the non-viewed channel frequency is assigned with the data service by allocating packets in an MPEG stream to data services.

Regarding **claim 7**, “a method for use in an endpoint of a Video distribution system” reads on the method of optimizing utilization of available bandwidth in the cable network (§0003) disclosed by Lemmons and represented in Fig. 1.

As to “the method comprising: determining programming that is currently being viewed and sending tuning data representing the currently viewed programming to an upstream distribution point” Lemmons discloses (§0031 and claim 10) that the receiver transmits a message, which indicates that viewer has selected a channel to be viewed, and the device is turned on/off, to the head-end as represented in Figs 1 and 3.

As to “IGMP signaling includes a packet comprising downstream frequency information and packet identifier information representing the currently viewed programming” Lemmons discloses (§0029) the representation of programming with downstream frequency information and packet identifier information as represented in Fig. 2.

Lemmons meets all the limitations of the claim except “wherein the sending step includes the step of sending the tuning data via IGMP (Internet Group Management Protocol) signaling.” However, Drake discloses (col.4, lines 37-55) that the STB receives event information data using IGMP signals. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Lemmons invention by using IGMP signals to transmit downstream frequency data and packet identifier as taught by Drake in order to receive traffic for a specific group of frequency/channels and allow more efficient use of resources.

Regarding **claim 8**, “the method wherein the video distribution system is a cable broadcast system” Lemmons discloses (§0025) that the method uses cable television broadcast network as represented in Fig. 1.

Regarding **claim 9**, “the method wherein the endpoint is a set-top box” Lemmons discloses (§0025) that the receiver is a set-top box as represented in Fig. 1 (element 108).

Regarding **claim 10**, “the method wherein the step of determining includes: receiving a channel selection from a user and tuning to the selected channel for providing the programming to the user” Lemmons discloses (§0031) that the viewer views channel by selecting a channel via remote control device.

Regarding **claim 14**, ‘apparatus for use in an upstream distribution point of a multi-media communications system” reads on the system of optimizing utilization available bandwidth in the cable network (§0003) disclosed by Lemmons and represented in Fig. 1.

As to “the apparatus comprising: a receiver for receiving tuning data from at least one downstream endpoint of the multi-media communications system” Lemmons discloses (§0031 and claim 10) that the receiver transmits a message, which indicates that viewer has selected a channel to be viewed; when the device is turned on/off, to the head-end as represented in Figs 1 and 3.

As to “a processor operative on the received tuning data for replacing content of a program channel that is not being viewed with new content” Lemmons discloses (§0032) that an algorithm for reassigning channels reassign channels that are not being viewed as represented in Fig. 3 (element 308) and Fig. 5.

As to “IGMP signaling includes a packet comprising downstream frequency information and packet identifier information representing the

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programming that is currently being viewed” Lemmons discloses (§0029) the representation of programming with downstream frequency information and packet identifier information as represented in Fig. 2.

Lemmons meets all the limitations of the claim except “wherein the tuning data is received via a modified form of IGMP (Internet Group Management Protocol) signaling.” However, Drake discloses (col.4, lines 37-55) that the STB receives event information data using IGMP signals. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Lemmons invention by using IGMP signals to transmit downstream frequency data and packet identifier as taught by Drake in order to receive traffic for a specific group of frequency/channels and allow more efficient use of resources.

Regarding **claim 15**, “the apparatus further including a memory for storing a replaceable program channel list comprising a list of program channels and a respective current selection status, wherein the processor updates the current selection status in accordance with the received tuning data” Lemmons discloses (§0028 and §0032) that the memory unit stores instruction for processing unit, channel look-up table for selected channels, menu information for channels and other information as represented in Fig. 3 (element 314).

Regarding **claim 16**, “the apparatus wherein the processor checks the

current selection status of the replaceable program channel list to determine if a program channel is not being viewed” Lemmons discloses (§0032) that if the channel is found that is not being viewed, then the data service is assigned to the non-viewed channel as represented in Fig. 5 (element 508).

Regarding **claim 17**, “the apparatus wherein the upstream distribution point is a cable head-end” Lemmons discloses (§0024) that the system includes head-end as represented in Fig. 1 (element 102).

Regarding **claim 18**, “the apparatus wherein the multi-media communications system is a cable broadcast system” Lemmons discloses (§0025) that the head-end system uses cable television broadcast network as represented in Fig. 1.

Regarding **claim 19**, “apparatus for use in an endpoint of a video distribution system” reads on the system of optimizing utilization of available bandwidth in the cable network (§0003) disclosed by Lemmons and represented in Fig. 1.

As to “the apparatus comprising: a communications interface for coupling to a communications channel” Lemmons discloses (§0028) that the receiver is connected to cable system via network interface as represented in Fig. 3 (elements 302, 304).

As to “a processor for determining programming that is currently being viewed, and for sending tuning data representing the currently viewed programming via the communications interface for transmission over the communications channel to an upstream distribution point” Lemmons discloses (¶0038) that the receiver transmits currently viewed channel information to head-end system via network interface to head-end as represented in Fig. 9 and Fig. 3 (element 308).

As to “IGMP signaling includes a packet comprising downstream frequency information and packet identifier information representing the currently viewed programming” Lemmons discloses (¶0029) the representation of programming with downstream frequency information and packet identifier information as represented in Fig. 2.

Lemmons meets all the limitations of the claim except “wherein the processor causes the tuning data to be sent using IGMP (Internet Group Management Protocol) signaling.” However, Drake discloses (col.4, lines 37-55) that the STB receives event information data using IGMP signals. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Lemmons invention by using IGMP signals to transmit downstream frequency data and packet identifier as taught by Drake in order to receive traffic for a specific group of frequency/channels and allow more efficient use of resources.

Regarding **claim 20**, “the apparatus wherein the communications channel is a public- switched-telephone-network (PSTN)” Lemmons discloses (§0025) that the communication network may comprise fiber optic, coaxial cable, terrestrial or satellite transmission. The claim would have been obvious because the substitution of coaxial cable network as taught by Lemmons with the PSTN network would have yielded predictable result of having more homes/customers that are connected to telephone network than to cable network to a person of ordinary skill in the art at the time of the invention.

Regarding **claim 21**, “the apparatus wherein the communications channel is a part of a cable broadcast system” Lemmons discloses (§0025) that the cable network is a part of the head-end system as represented in Fig. 1 (element 104).

Regarding **claim 22**, “the apparatus wherein the endpoint is a set-top box” Lemmons discloses (§0025) that the receiver is a set-top box as represented in Fig. 1 (element 108).

Regarding **claim 23**, “the apparatus further comprising a remote interface for receiving a program channel selection from a user and for providing the program channel selection to the processor for use in determining the programming that is currently being viewed” Lemmons discloses (§0028) that the

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control interface receives signals from an input device such as remote control as represented in Fig. 3 (element 310).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US PG Pub 2004/0226044 to Goode discloses network bandwidth optimization by dynamic channel allocation.
- US PG Pub 2005/0071882 to Rodriguez discloses systems for adaptive scheduling and dynamic bandwidth resource allocation management in a digital broadband delivery system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PINKAL CHOKSHI whose telephone number is (571) 270-3317. The examiner can normally be reached on Monday-Friday 8 - 5 pm (Alt. Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. C./

Examiner, Art Unit 2425

/Brian T. Pendleton/

Supervisory Patent Examiner, Art Unit 2623